In the Claims:

We claim:

1. (currently amended) A carrier ~~Carrier~~ system for the cell-specific, intracellular enrichment of at least one pharmacologically active substance, ~~characterized in that~~ wherein said carrier system is present in the form of protein-based nanoparticles ~~based on protein, preferably based on gelatine and/or serum albumin, particularly preferably based on human serum albumin,~~ and comprises ~~that it has~~ structures and reactive groups, wherein said reactive groups couple said structures to form a coupled structure ~~that are coupled by means of reactive groups~~, said structures enabling a cell-specific attachment and cellular absorption of the nanoparticles.

2. (currently amended) The carrier ~~Carrier~~ system according to claim 1, ~~characterised in that~~ wherein the reactive group is selected from the group consisting of an amino group, a thiol group, a carboxyl group[[, or]] and an avidin derivative.

3. (currently amended) The carrier ~~Carrier~~ system according to claim 1, wherein ~~or 2, characterised in that~~ the coupled structure is an antibody.

4. (currently amended) The carrier ~~Carrier~~ system according to claim 3, ~~characterised in that~~ wherein the antibody is a monoclonal antibody.

5. (currently amended) The carrier ~~Carrier~~ system according to claim 1, wherein said carrier system ~~any one of the preceding claims, characterised in that it~~ additionally comprises a pharmaceutically active substance that is bound to the carrier system by ~~means of~~ the reactive groups by a method selected from the group consisting of adsorption, incorporation, [[or]] covalent bonds [[or]] and complexing bonds.

6. (currently amended) Use of a carrier system according to claim 1 ~~any one of the preceding claims~~ for producing a medicament for enrichment of a pharmaceutically active substance to/in specific cells.

7. (currently amended) A method ~~Method~~ for producing a carrier system in the form of protein-based nanoparticles for the cell-specific enrichment of at least one pharmacologically active substance, ~~characterised in that it~~ wherein said method comprises the following steps:

~~Desolvating~~ desolvating an aqueous protein solution to form nanoparticles;[[,]]

stabilising the nanoparticles formed by the desolvation step[[,]] by crosslinking[[,]];

converting part of the functional groups on the surface of the stabilised nanoparticles to reactive thiol groups[[,]];

covalently attaching functional proteins~~, preferably avidin,~~ by ~~means of~~ bifunctional spacer molecules[[,]];

if required, biotinylating the antibody[[,]];

loading the ~~avidin~~ functional-protein-modified nanoparticles with the biotinylated antibody[[,]]; and

loading the ~~avidin~~ functional-protein -modified nanoparticles with a biotinylated and pharmaceutically or biologically active substance.

8. (currently amended) The method ~~Method~~ according to claim 7, ~~characterised in that~~ wherein the protein base is selected from the group consisting of gelatine [[and/or]] and serum albumin~~, preferably human serum albumin~~.

9. (currently amended) The method ~~Method~~ according to claim 7, wherein ~~or 8, characterised in that~~ the desolvation step is carried out by a method selected from the group consisting of stirring and and ~~addition of~~ adding a water-miscible non-solvent for proteins[[, or]] and by salting-out.

10. (currently amended) The method ~~Method~~ according to claim 9, ~~characterised in that~~ wherein the water-miscible non-solvent for proteins is selected from the group ~~comprising~~ consisting of ethanol, methanol, isopropanol and acetone.

11. (currently amended) The method ~~Method~~ according to claim ~~any one of claims~~ 7, wherein said step of stabilising the nanoparticles is achieved by utilising at least one method selected from the group consisting of ~~to 10, characterised in that~~ thermal processes, [[or]] bifunctional aldehydes and [[or]] formaldehyde ~~are/is utilised for stabilising the nanoparticles~~.

12. (currently amended) The method ~~Method~~ according to claim 11, wherein said ~~characterised in that glutaraldehyde is used as~~ bifunctional aldehyde is glutaraldehyde.

13. (currently amended) The method ~~Method~~ according to ~~any one of claims~~ claim 7, further comprising the step of using ~~to 12, characterised in that as the thiol group-modifying agent~~ a substance ~~is used~~ as the thiol group-modifying agent that is selected from the group ~~comprising~~ consisting of 2-iminothiolane, a combination of 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide and cysteine, [[or]] a combination of 1-ethyl-3-(3-dimethylaminopropyl)-carbodiimide and cystaminium dichloride and ~~as well as~~ dithiotreitol.

14. (currently amended) The method ~~Method~~ according to claim ~~any one of claims~~ 7, further comprising the step of using ~~to 13, characterised in that as bifunctional spacer molecule~~ a substance ~~is used~~ as a bifunctional spacer molecule that is selected from

the group ~~comprising~~ consisting of m-maleimidobenzoyl-N-hydroxysulfosuccinimide ester, sulfosuccinimidyl-4-[N-maleimido-methyl]cyclohexane-1-carboxylate, sulfosuccinimidyl-2-[m-azido-o-nitrobenzamido]-ethyl-1,3´dithiopropionate, dimethyl-3,3´-dithiobispropionimidate-dihydrochloride and 3,3´-dithiobis[sulfo-succinimidylpropionate].

15. (new) The carrier system according to claim 1, wherein said protein-based nanoparticles are based on at least one protein selected from the group consisting of gelatine and serum.

16. (new) The carrier system according to claim 16, wherein said protein-based nanoparticles are based on human serum albumin.

17. (new) The method according to claim 7, wherein said functional proteins are avidin.

18. (new) The method according to claim 8, wherein the protein base is human serum albumin.